

In the Claims:

Please amend the claims as follows:

1. (Currently Amended) The method of claim 4 wherein the digital information comprises ~~A method for making error corrections on digital information coded as symbol sequences, for example digital information stored in electronic memory systems or transmitted from and to these systems providing the transmission of sequences incorporating a portion of error corrector code allowing the sequence which is more probably the original transmitted through the calculation of an error syndrome using a parity matrix to be restored when received, characterized in that the error code incorporated in the original sequence belongs to a non-Boolean group.~~

2. (Currently Amended) A method according to claim 1, ~~characterized in that~~ wherein said error corrector code is a linear code.

3. (Currently Amended) A method according to claim 1, ~~characterized in that~~ wherein said error corrector code recognizes an error of the 0 → 1 type from an error of the 1 → 0 type.

4. (Currently Amended) A method for making error corrections on digital information coded as symbol sequences, the method comprising:

providing the transmission of sequences incorporating a portion of an error corrector code which allows the sequence which is more probably the original transmitted through the calculation of an error syndrome using a parity matrix to be restored when received;

wherein the error corrector code incorporated in the original sequence belongs to a non Boolean group;

wherein A method according to claim 1, characterized in that said parity matrix comprises an identity matrix having a non-zero determinant;

wherein different from 0, i.e. that a each number belonging to the parity matrix is not a linear combination of other numbers belonging to the same matrix;

and

wherein operating in a if in an additive group (mod p), a parity bit number $n-k$ is fixed and p is chosen so that $(2^{n-k} + 1) \leq p \leq 2^{n-k+1} - 1$ with p different from 2 it is composed of the numbers $p-1, p-2, \dots, p-2^{n-k}$.

wherein n equals a total number of bits in each sequence; and

wherein k equals the number of information bits forming the digital information.

5. (Currently Amended) A method according to claim 14, ~~characterized in that~~ wherein said error corrector code belongs to an Abelian group.

6. (Currently Amended) A method according to claim 14, ~~characterized in that~~ wherein said error corrector code is a code in the systematic form.

7-21. (Cancelled)